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Fax**GROUP ART UNIT 2877**

To:	Examiner Sang H. Nguyen	From:	Scott F. Diring
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No. of Pages:	4	Date:	April 29, 2003
Re:	Response to Office Action Dated 01/29/03	File:	09/897,576 2000.071100/SFD

* w/o coversheet

ORIGINAL: ☐ Will follow ☒ Will not follow

• Comments:

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<p>CERTIFICATE OF TRANSMISSION 37 CFR 1.8(a)</p> <p>I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office, Fax No. (703) 872-9318 on April 29, 2003.</p> <p>Scott F. Diring</p> <p>_____ Type or printed name of person signing this certificate</p> <p> _____ Signature</p>

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:
Richard J. Markle
Kevin R. Lensing
J. Broc Stirton
Marilyn I. Wright

Serial No.: 09/897,576

Filed: July 2, 2001

For: METHOD AND APPARATUS FOR DETERMINING
CONTACT OPENING DIMENSIONS USING
SCATTEROMETRY

Group Art Unit: 2877

Examiner: Sang H. Nguyen

Atty. Dkt. No.: 2000.071100/SFD

Client Ref: TT4355 FAX RECEIVED

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RESPONSE TO OFFICE ACTION DATED JANUARY 29, 2003

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

This paper is submitted in response to the Office Action dated January 29, 2003 for which the three-month date for response is April 29, 2003. It is believed that no fee is due; however, should any fees under 37 C.F.R. §§ 1.16 to 1.21 be required for any reason, the Assistant Commissioner is authorized to deduct said fees from Advanced Micro Devices, Inc. Deposit Account No. 01-0365/4355.

Reconsideration of the application is respectfully requested.

Claims 1-65 stand rejected under the judicially created doctrine of obviousness-type double patenting over claims 1-59 of U.S. Patent Application No. 09/897,623. The Office Action asserts that the limitations of the claims in the instant application are similar to those in U.S. Patent Application No. 09/897,623. To the contrary, the claims of the instant application are directed to measuring a test structure including a plurality of lines and a plurality of contact openings defined in the lines. The claims of U.S. Patent Application No. 09/897,623 include a test structure with a plurality of trenches having a plurality of columns defined in the trenches. The test structures employed are completely different and the characteristics measured are also different. The test structure of the present invention is used to measure contact opening dimensions, while the test structure of U.S. Patent Application No. 09/897,623 is used to measure column dimensions. The test structure of the instant application is not obvious in view of the claims of U.S. Patent Application No. 09/897,623 as it is directed to an entirely different structure and measures different characteristics. Applicants respectfully request the rejection of these claims be withdrawn.

Claims 52-62 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,489,005 (Armacost). The test structure set forth in claims includes a plurality of lines with a plurality of contact openings defined in the lines. The Office Action asserts that Armacost teaches these features. To the contrary, Armacost does not teach or suggest a structure with a plurality of lines and contact openings defined in the lines. The Office Action cites the openings 30 in Figures 3C - 3H as the lines and the columns 14 of Figure 2 as being the contact openings. The openings 30 are referred to by Armacost as circular trenches. These openings at most correspond to Applicants' contact openings, not to the lines. Armacost does not have a structure corresponding to the lines in which the openings are formed. The contact openings of Armacost

are formed in a planar region, not in lines. The columns shown in Figure 2 actually represent the structure of Figure 3 after further processing. Applicant is unsure how a column can be equated with a contact opening. The opening is used by Armacost in the manufacture of the column, but the contact opening and the column are not the same structure and do not exist at the same time. Moreover, the columns are not defined in the lines. For the columns to be defined in the lines, they lines have to be present at the same time. Claim 52 is an apparatus claim, not a process claim. The language "contact openings defined in the lines" refers to lines being present with openings defined in the lines, not to a method of forming columns using the openings as an intermediate step in the process. The columns shown in Figure 2 of Armacost are formed by filling in the openings 30 and removing the surrounding material. As seen in Applicants' Figure 2, distinct lines are present with contact openings defined therein. Armacost does not have lines in which contact openings are formed. Accordingly, claim 52, and all claims depending therefrom, are allowable over Armacost. Applicants respectfully request the rejection of claims 52-62 be withdrawn.

Claims 1-51 and 63-65 stand rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent No. 6,464,563 (Lensing) in view of U.S. Patent No. 5,736,863 (Liu). The instant application is assigned to Advanced Micro Devices, Inc. At the time of the instant invention, United States Patent No. 6,464,563 (Lensing) was also assigned to Advanced Micro Devices, Inc. Because the instant application and the cited patent were commonly owned at the time of the invention, Applicants are entitled under 35 U.S.C. § 103(c) to disqualify Lensing as prior art under 35 U.S.C. § 103(a). As the rejection of claims 1-51 and 63-65 is thus moot, Applicants take no position regarding the patentability of these claims in view of the cited art. Applicants respectfully request the rejection of these claims be withdrawn.

The Examiner is invited to contact the undersigned patent agent at (608) 833-0748 with any questions, comments or suggestions relating to the referenced patent application.



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Date: April 29, 2003

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Scott F. Diring", written over a horizontal line.

Scott F. Diring
Reg. No. 35,119

Patent Agent for Applicants

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